

Applicant: Gaines Thomas Ray, et al.

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IN THE CLAIMS

Please amend claims 6 and 34 as follows.

Please add claims 36-52.

1. (Withdrawn) An apparatus comprising:

a housing,

a cartridge including a spray tip removably disposed in said housing;

wherein a medium residing in the cartridge is dispensed through the spray tip when the cartridge is pressurized.

2. (Withdrawn) The apparatus of claim 1, further comprising a motor coupled to a pump, said pump is coupled to the housing to supply one of air and gas stream to the spray tip.

3. (Withdrawn) The apparatus of claim 2, further comprising at least one battery coupled to the motor to power the pump.

4. (Withdrawn) The apparatus of claim 1, wherein the cartridge and the spray tip are molded together as one unit.

5. (Withdrawn) The apparatus of claim 1, wherein the cartridge is a replaceable cartridge.

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6. (Currently amended) A cartridge comprising:

a nozzle having a tapered nozzle tip disposed at one end of the cartridge;  
an inner chamber to hold a medium to be dispersed from the cartridge; and  
a piston disposed within the cartridge to push against the inner chamber;

and

a spray tip having a spray tip exit provided in fluid communication with  
said nozzle tip and a hose attachment nipple having a nipple bore disposed in linearly  
aligned relationship to said spray tip exit, said nozzle tip terminating between said spray  
tip exit and said nipple bore of said hose attachment nipple and disposed at an acute angle  
with respect to said nipple bore.

7. (Original) The cartridge of claim 6, further comprising an opening in the rear of the cartridge to allow one of atmospheric and positive air pressure to enter the cartridge.

8. (Withdrawn) An apparatus comprising:

a cartridge carrier having an upper portion and a lower portion, the upper portion hingeably coupled to the lower portion;  
a cartridge removably coupled to said cartridge carrier;  
a front air seal and a rear air seal, the front and rear air seals coupled to said lower portion of the cartridge carrier;  
a first vent coupled to said lower portion of the cartridge carrier to pass air to said cartridge carrier; and

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a second vent coupled to said lower portion of the cartridge carrier to pass air from said cartridge carrier.

9. (Withdrawn) The apparatus of claim 8, further comprising a motor coupled to a pump, said pump is coupled to the cartridge carrier to supply one of air and gas stream to the cartridge.

10. (Withdrawn) The apparatus of claim 9, further comprising at least one battery coupled to the motor to power the pump.

11. (Withdrawn) The apparatus of claim 8, wherein the cartridge includes a spray tip, the cartridge and the spray tip are molded together as one unit.

12. (Withdrawn) The apparatus of claim 8, the cartridge further comprising:

- a nozzle disposed at one end of the cartridge;
- an inner chamber to hold a medium to be dispersed from the cartridge; and
- a piston disposed within the cartridge to push against the inner chamber.

13. (Withdrawn) The apparatus of claim 8, the cartridge further including a spreader plug removably coupled to a spray tip.

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14. (Withdrawn) The apparatus of claim 11, the cartridge further including a hollow tube portion including a plurality of thru-holes, wherein a powdered media is drawn into the hollow tube portion by air flow and exits thru the spray tip.

15. (Withdrawn) The apparatus of claim 11, the cartridge further including a plurality of o-ring seals coupled to a needle valve, wherein the needle valve manually triggers an amount of media flow through the spray tip.

16. (Withdrawn) The apparatus of claim 9, the pump including a helical fan blade.

17. (Withdrawn) The apparatus of claim 9, where the pump is a diaphragm pump, the pump coupled to a gear reduction device.

18. (Withdrawn) The apparatus of claim 9, where the pump is a triplex pump, the pump coupled to a gear reduction device.

19. (Withdrawn) A cartridge comprising:

    a nozzle disposed at one end of the cartridge;

    a spreader plug removably coupled to the nozzle;

    an inner chamber to hold a medium to be dispersed from the cartridge; and

    a piston disposed within the cartridge to push against the inner chamber.

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20. (Withdrawn) A cartridge comprising:

    a nozzle disposed at one end of the cartridge;

    an inner chamber to hold a powdered medium to be dispersed from the cartridge, the inner chamber including a hollow tube portion having a plurality of thru-holes, wherein the powdered medium is drawn into the hollow tube portion by air flow and exits through the nozzle.

21. (Withdrawn) A cartridge comprising:

    a nozzle disposed at one end of the cartridge;

    an inner chamber to hold a powdered medium to be dispersed from the cartridge;

    a plurality of o-ring seals coupled to a needle valve disposed within the chamber; and

    a piston disposed within the cartridge to push against the inner chamber, wherein the needle valve manually triggers an amount of media flow through the nozzle.

22. (Withdrawn) A system comprising:

    a housing having a cartridge loading portion and a battery loading portion, including:

        a cartridge carrier having an upper portion and a lower portion, the upper portion hingeably coupled to the lower portion;

        a cartridge removably coupled to said cartridge carrier;

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a front air seal and a rear air seal, the front and rear air seals

coupled to said lower portion of the cartridge carrier;

a first vent coupled to said lower portion of the cartridge carrier to pass air to said cartridge carrier;

a second vent coupled to said lower portion of the cartridge carrier to pass air from said cartridge carrier; and

a motor coupled to a pump, said pump is coupled to the cartridge carrier to supply one of air and gas stream to the cartridge.

23. (Withdrawn) The system of claim 22, further comprising at least one battery coupled to the motor to power the pump.

24. (Withdrawn) The system of claim 22, wherein the cartridge includes a spray tip, the cartridge and the spray tip are molded together as one unit.

25. (Withdrawn) The system of claim 22, the cartridge further comprising:

an inner chamber to hold a medium to be dispersed from the cartridge; and  
a piston disposed within the cartridge to push against the inner chamber.

26. (Withdrawn) The system of claim 25, the cartridge further including a spreader plug removably coupled to the spray tip.

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27. (Withdrawn) The system of claim 25, the cartridge further including a hollow tube portion including a plurality of thru-holes, wherein a powdered media is drawn into the hollow tube portion by air flow and exits thru the spray tip.

28. (Withdrawn) The system of claim 22, the cartridge further including a plurality of o-ring seals coupled to a needle valve, wherein the needle valve manually triggers an amount of media flow through a spray tip.

29. (Withdrawn) The system of claim 22, the pump including a helical fan blade.

30. (Withdrawn) The system of claim 22, where the pump is a diaphragm pump, the pump coupled to a gear reduction device.

31. (Withdrawn) The system of claim 22, where the pump is a triplex pump, the pump coupled to a gear reduction device.

32. (Withdrawn) A system comprising:

    a housing including:

        means for replacing a removable cartridge from the housing;

        a front air seal and a rear air seal, the front and rear air seals coupled to a cartridge carrier;

        means for passing air to said cartridge carrier;

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means for passing air from said cartridge carrier; and

means for supplying one of air and gas stream to the cartridge.

33. (Withdrawn) The system of claim 32, wherein the means for supplying one of air and gas stream includes a motor coupled to a pump, said pump is coupled to the cartridge carrier.

34. (Currently amended) A cartridge comprising:

a nozzle having a tapered nozzle tip disposed at one end of the cartridge;

an inner chamber to hold a medium to be dispersed from the cartridge; and

means for dispersing said medium from the cartridge;

a spray tip having a spray tip body, a spray tip exit provided in said spray tip body and a hose attachment nipple extending from said spray tip body;

a nipple bore extending through said hose attachment nipple in linearly aligned relationship to said spray tip exit and having a discharge end at said spray tip body; and

wherein said nozzle tip of said nozzle protrudes into said spray tip body and terminates between said spray tip exit and said discharge end of said nipple bore.

35. (Withdrawn) A cartridge comprising:

a nozzle disposed at one end of the cartridge;

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an inner chamber to hold a powdered medium to be dispersed from the cartridge, and

means for dispersing the powdered medium thru the nozzle.

36. (New) The cartridge of claim 6 wherein said spray tip comprises a spray tip body and wherein said hose attachment nipple is carried by said spray tip body.

37. (New) The cartridge of claim 36 further comprising a flange carried by said spray tip body.

38. (New) The cartridge of claim 6 further comprising an orifice provided in said nozzle tip and wherein said nozzle tip is adjustably carried by said nozzle for adjusting a size of said orifice.

39. (New) The cartridge of claim 38 wherein said nozzle tip threadably engages said nozzle.

40. (New) The cartridge of claim 6 further comprising a lid carried by said cartridge adjacent to said inner chamber and an opening provided in said lid.

41. (New) The cartridge of claim 6 further comprising an air source provided in fluid communication with said hose attachment nipple.

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42. (New) The cartridge of claim 41 further comprising a hose connecting said air source to said hose attachment nipple.

43. (New) The cartridge of claim 42 further comprising a hose extension connecting said hose to said inner chamber.

44. (New) The cartridge of claim 34 further comprising a flange carried by said spray tip body.

45. (New) The cartridge of claim 34 further comprising an orifice provided in said nozzle tip and wherein said nozzle tip is adjustably carried by said nozzle for adjusting a size of said orifice.

46. (New) The cartridge of claim 45 wherein said nozzle tip threadably engages said nozzle.

47. (New) The cartridge of claim 34 further comprising a lid carried by said cartridge adjacent to said inner chamber and an opening provided in said lid.

48. (New) The cartridge of claim 34 further comprising an air source provided in fluid communication with said hose attachment nipple.

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49. (New) The cartridge of claim 48 further comprising a hose connecting said air source to said hose attachment nipple.

50. (New) The cartridge of claim 49 further comprising a hose extension connecting said hose to said inner chamber.

51. (New) A cartridge comprising:

    a nozzle having a tapered nozzle tip disposed at one end of the cartridge;

    an inner chamber to hold a medium to be dispersed from the cartridge;

    means for dispersing said medium from the cartridge;

    a spray tip having a spray tip body, a spray tip exit provided in said spray tip body and a hose attachment nipple having a nipple bore extending from said spray tip body, said nipple bore disposed in linearly aligned relationship to said spray tip exit; and

    wherein said nozzle tip of said nozzle protrudes into said spray tip body and terminates between said spray tip exit and said nipple bore.

52. (New) The cartridge of claim 51 further comprising a hose connected to said hose attachment nipple, a hose extension connecting said hose to said inner chamber and an air source provided in fluid communication with said hose.